STATEMENT OF BASIS
GRANTSVILLE CITY
RENEWAL PERMIT: DISCHARGE, BIOSOLIDS
UPDES PERMIT NUMBER: UT0021130
UPDES BIOSOLIDS PERMIT NUMBER: UTL-021130
MINOR MUNICIPAL

FACILITY CONTACTS

Person Name:	C. Byron Anderson
Position:	Mayor
Person Name:	R. Joel Kertamus
Position:	Public Works Director
Person Name:	Ron Griffin
Position:	Lagoon Manager

Facility Name:	Grantsville City Corporation
Mailing Address:	429 East Main Street P.O. Box 567 Grantsville, Utah 84029
Telephone:	City Hall - (435) 884-3411
Actual Address:	630 North Race Street

DESCRIPTION OF FACILITY

The Grantsville City Lagoons were constructed in 1972. The lagoons service the city of Grantsville with a service population of approximately 5000. The average design flow capacity is 0.76 MGD, population equivalent of 6323 through the year 2015, and influent organic loadings of 170mg/L or 1,075lbs/day each for BOD_5 and TSS. The peak design flow is 1.9 MGD. Present flow is approximately 0.27 MGD on average, and up to 0.3 MGD peak flow.

The facility consists of a headwork's control building containing control equipment as well as a Rotomat rag compactor, headwork's structure with two influent channels and one bar screen followed by a 15 inch Palmer Bowlus flume and Drexel Brook ultrasonic flow meter. The facility is equipped with a diesel-powered generator that will operate as a backup power source.

Grantsville City's Lagoons consists of 8 lagoons, 1 primary, 1 secondary, 2 tertiary and 4 empty lagoons to allow for growth as well as for emergency overflow. Their lagoons include aerators. The primary lagoon has 8 aerators. The secondary lagoon has 5 aerators and the first tertiary cell has 3 aerators. The cells are contained on 102.2 acres. The following is a summary of Grantsville's Lagoons.

Grantsville City Pond Summary

Pond #	Pond Type	Surface Area, acres	Depth, ft
1	Aerated	2.69	10
2	Aerated	2.66	10
3	Aerated	3.64	10
4	Facultative	3.26	7
5	Evaporation (Overflow)	7.0	7
6	Evaporation (Overflow)	6.1	3
7	Evaporation (Overflow)	6.1	3
8	Evaporation (Overflow)	7.9	3

Following the lagoon cells is the disinfection building. The disinfection building contains the influent and effluent flow recorders, and an ultraviolet (UV) light channel. The UV channel is 21 feet long, 20 inches wide and contains two banks of UV lights in series, with 40 lights per bank. The building also houses the facility laboratory. Following the disinfection building is an effluent 15-inch Palmer Bowlus flume and Drexel Brook flow sensor.

The facility's discharge location at Outfall 001 is located at latitude 40°37'15" and longitude 112°26'50" and STORET number 496024.

A summary of the last 3 years of data is attached. There were significant violations, but none that resulted in enforcement action. Almost all were related to high levels of TSS or BOD. In the past Grantsville has inquired about alternative limits for lagoons systems. To qualify for these limits they must be able to meet all discharge limits but BOD and TSS and not be under any Settlement Agreement or compliance schedule, other than those related to TSS and BOD. At the present time they do not qualify, and still need to work on other issues before they can be granted the use of those limits.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

In an effort to better address the needs of the watershed and increase efficiency, the DWQ began consolidating permits. Therefore, in addition to the Discharge provisions, the renewal permit for Grantsville City will include provisions for storm water, biosolids, and discharge.

The Utah Water Quality Board had revised the bacteriological criteria in the Standards of Quality for Waters of the State effective June 1, 2005. Based, in part, on a long-standing recommendation from the Environmental Protection Agency, numeric criteria for E. coli bacteria were added to the standards. The new E. coli criteria is 126 (no.)/100 mL (30-day geometric mean) and 158 (no.)/100 mL (7-day geometric mean), which is considered equivalent to 200 (no.)/100 mL and 250 (no.)/100 mL fecal coliforms (*UAC R317-1-3.2*), respectively.

In March 2003, the Board agreed to adopt new standards that will have a significant effect on ammonia limits. The new ammonia standards were public noticed and approved in January 2004. The parameters affected were dissolved oxygen (DO), ammonia and total residual chlorine (TRC). A flow limit will be added to the permit this cycle.

DISCHARGE

DESCRIPTION OF DISCHARGE

Grantsville City has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis. A summary of the last 3 years of data is attached. There were significant violations, but none that resulted in enforcement action. Almost all were related to high levels of TSS or BOD. The facility stores effluent during the summer and winter quarters in ponds five through eight. During the fall and spring quarters it is discharged. As a result of holding the effluent through winter quarter there is a greater opportunity for algal growth in the holding pond. This results in greater algae in the discharge, and higher TSS in the effluent. During this period, almost all the water from Blue Lakes is diverted to be used in irrigation. Grantsville is upgrading there primary and secondary ponds for improve aeration. This should improve the effluent quality and reduce or eliminate the TSS and BOD violations.

Outfall	Description of Discharge Point
001	Located at latitude 40°37'15" and longitude 112°26'50". The discharge is located North of the disinfection building, in the NW ¼ section 29, T2S R5W, via a constructed ditch that travels approximately 150 yards to the North, before entering Blue Lakes.

RECEIVING WATERS AND STREAM CLASSIFICATION

The permitted discharge from the facility is to the North of the facility into Blue Lakes. Blue Lakes are unclassified according to *Utah Administrative Code (UAC) R317-2-13.14* (Revised December 2001) all waters not specifically classified are presumptively classified as 2B and 3D. The use designation for Class 2B and Class 3D according to *UAC R317-2-6* are as follows:

Class 2B	-Protected for secondary contact recreation such as boating, wading, or similar uses.
Class 3D	-Protected for waterfowl, shore birds and other water oriented wildlife not included in Class 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on total suspended solids (TSS), biochemical oxygen demand (BOD_5), fecal and total coliforms, pH and percent removal for BOD_5 and TSS are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. The Ammonia limit was derived from a Waste Load Analysis (WLA) on the discharge. The permit limitations are:

Parameter	Effluent Limitations			
	Maximum Monthly Average	Maximum Weekly Average	Daily Minimum	Daily Maximum
Flow, MGD	0.76	NA	NA	NA
BOD_5, mg/L	25	35	NA	NA
BOD_5 Min. % Removal	85	NA	NA	NA
TSS, mg/L	25	35	NA	NA
TSS Min. % Removal	85	NA	NA	NA

Dissolved Oxygen, mg/L	NA	NA	5.0	NA
Ammonia, mg/L	NA	NA	NA	21.1
E. Coli, No/100mL	126	158	NA	NA
pH, Standard Units	NA	NA	6.5	9.0

NA – Not Applicable.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are the same as in the previous permit. The permit will require reports to be submitted monthly and quarterly, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period. Lab sheets for biomonitoring must be attached to the biomonitoring DMR.

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b, *c	Continuous	Recorder	MGD
BOD_5, Influent	2 x Monthly	Grab	mg/L
Effluent	2 x Monthly	Grab	mg/L
TSS, Influent	2 x Monthly	Grab	mg/L
Effluent	2 x Monthly	Grab	mg/L
Dissolved Oxygen	2 x Monthly	Grab	mg/L
Ammonia	2 x Monthly	Grab	mg/L
E. Coli, No/100mL	2 x Monthly	Grab	No./100mL
pH	2 x Monthly	Grab	SU

*a See Definitions, *Part VI*, of Permit for definition of terms.

*b Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.

*c If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

BIOSOLIDS

The State of Utah has adopted the *40 CFR 503* federal regulations for the disposal of sewage sludge (biosolids) by reference. However, since this facility is a lagoon, there is not any regular sludge production. Therefore *40 CFR 503* does not apply at this time. In the future, if the sludge needs to be removed from the lagoons and is disposed in some way, the Division of Water Quality must be contacted prior to the removal of the sludge to ensure that all applicable state and federal regulations are met.

STORM WATER

STORMWATER REQUIREMENTS

Wastewater treatment facilities, which includes treatment lagoons, are required to comply with storm water permit requirements if they meet one or both of the following criteria,

1. The facility has an approved pretreatment program as described in 40 CFR Part 403.
2. The facility has a design flow of 1.0 MGD or greater.

The Grantsville City facility does not meet either of the criteria; therefore a storm water permit is not required at this time. A storm water re-opener provision is included in the permit should a storm water permit be needed in the future.

PRETREATMENT REQUIREMENTS

The permittee has not been designated for pretreatment program development because it does not meet conditions which necessitate a full program. The flow through the plant is less than five (5) MGD, there are no categorical industries discharging to the treatment facility, industrial discharges comprise less than 1 percent of the flow through the treatment facility, and there is no indication of pass through or interference with the operation of the treatment facility such as upsets or violations of the POTW's UPDES permit limits.

Although the permittee does not have to develop a State-approved pretreatment program, any wastewater discharges to the sanitary sewer are subject to Federal, State and local regulations. Pursuant to *Section 307* of the *Clean Water Act*, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in *40 CFR 403* and the State Pretreatment Requirements found in *UAC R317-8-8*.

An industrial waste survey (IWS) is required of the permittee as stated in Part II of the permit. The IWS is to assess the needs of the permittee regarding pretreatment assistance. The IWS is required to be submitted within sixty (60) days after the issuance of the permit. If an Industrial User begins to discharge or an existing Industrial User changes their discharge the permittee must resubmit an IWS no later than sixty days following the introduction or change as stated in Part II of the permit. **(ENSURE THAT THE INDUSTRIAL WASTE SURVEY INFORMATION IS PROVIDED TO THE PERMIT, IT CAN BE FOUND IN THE UPDES FOLDER. Remove statement after issuance)**

It is recommended that the permittee perform an annual evaluation of the need to revise or develop technically based local limits for pollutants of concern, to implement the general and specific prohibitions *40 CFR, Part 403.5(a)* and *Part 403.5(b)*. This evaluation may indicate that present local limits are sufficiently protective, need to be revised or should be developed. It is recommended that the permittee submit for review any local limits that are developed to the Division of Water Quality. If local limits are developed they must be public noticed.

BIOMONITORING REQUIREMENTS

As part of a nationwide effort to control toxic discharges, biomonitoring requirements are being included in permits for facilities where effluent toxicity is an existing or potential concern. In Utah, this is done in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (Biomonitoring).* Authority to require effluent biomonitoring is provided in *Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3* and *Water Quality Standards, UAC R317-2-5 and R317-2-7.2.*

The potential for toxicity is not deemed sufficient to require biomonitoring or whole effluent toxicity (WET) limits because there are no present or anticipated industrial dischargers on the system nor are there any anticipated for the duration of this permit. The waste discharge is anticipated to be household waste only. Therefore, biomonitoring is not required in this permit, however the permit will contain a WET reopener provision.

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

Drafted by
Daniel Griffin, Discharge
Utah Division of Water Quality

_____, _____
Permit Writer Date